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FBIS-1265/87

MEMORANDUM FOR: Deputy Director for Administration

FROM:
Director, Foreign Broadcast Information Service

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SUBJECT: Fiber Optic Communications Requirements for FBIS
at Reston

1. Pursuant to our discussion of 8 January 1987, FBIS withdraws its requirement for a microwave antenna at Reston. As agreed, the INTERNET service to Reston will be implemented with an FBIS microwave system from Quantico to Headquarters (utilizing relays at Hopewell Gap, VA and Tysons Corner, VA) and OIT's fiber optic service . FBIS has just completed an Inter-Service Support Agreement with the U.S. Army for the use of the Tysons Tower and does not require OIT assistance to complete the microwave service. FBIS requires that the INTERNET signals be routed from the Headquarters Penthouse to OIR's Television Operations Center (TOC) by 1 March 1987 and to OIT's fiber optic system by 1 June 1987.

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2. Subsequent discussions between FBIS technical representatives and OIT personnel have resulted in an agreement that the primary INTERNET service to Reston will eventually be supported by the Tysons Tower to Reston fiber optic system once that system is installed in September 1987. The original INTERNET service via the direct Headquarters/Reston fiber optic system would then become a backup. The primary and backup systems should be designed to provide .999 availability. In the longer term, FBIS looks forward to being included in OIT's Northern Virginia fiber optic grid plans and requests service to its INTERNET earth terminal site at Quantico, VA.

3. We also ask that all interfaces between FBIS signals and OIT's fiber optic system be electrical and not optical. The attachment tabulates signal interface and technical qualifications for the signals in question.

4. To reiterate one other outstanding requirement, FBIS also requires two full duplex video channels between Reston and our TV Receive Only (TVRO) system in Headquarters (located in the OIR TOC) and two full duplex 56 KBS synchronous channels between Reston and P&PD by 15 May 1987. The 56 KBS circuits will be used to support testing of our new automated system.

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5. Memoranda outlining other FBIS communications requirements have been forwarded to OIT and are still valid. For any questions of a technical nature concerning FBIS communications requirements, please contact

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Attachment

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ATTACHMENT

<u>CIRCUIT</u>	<u>QTY</u>	<u>TECHNICAL DESCRIPTION</u>
Full Duplex Audio Channels	6	Quantico to Reston S/N = 45 db minimum Bandwidth = 50Hz - 15kHz Output level from microwave + 8dbm Input level to microwave + 8dbm Impedance in and out = 600 ohm
Full Duplex TV Channels	3	Quantico to Reston S/N = 50 db minimum Bandwidth = 50Hz - 6.5MHz Output level from microwave 1 volt (P-P) Input level to microwave 1 volt (P-P) Impedance in and out = 75 ohm (see below)
Full Duplex TV Audio Subcarrier	3	Quantico to Reston Bandwidth = 40Hz - 15kHz Output level from microwave 0 dbm Input level to microwave 0 dbm Impedance in and out = 600 ohm (see below)
Full Duplex Wideband FAX	1	Quantico to Reston S/N = 40 db Bandwidth = 4kHz - 156kHz Output level from microwave +15dbm Input level to microwave + 8dbm Impedance in and out 75 ohm
Full Duplex Orderwire	2	Quantico to Reston S/N = 35 db Bandwidth = 50Hz - 4kHz Output level from microwave +8dbm Input level to microwave +8dbm Impedance in and out 600 ohm
Full Duplex 56 KBS Synchronous	2	Reston to P&PD Bit error rate less than or equal to 10 ⁻⁹ .RS-232 interface

Note: Two of the three TV video and audio carriers will be coming from the TVRO antenna with the third coming from the Quantico INTERNET system.

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FBIS/ESG/HED [redacted] (16Jan87)

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Distribution:

Orig - Addressee
1 - D/FBIS Chrono
1 - RWM Corres
1 - C/ICCS
1 - C/ESG
1 - C/ADD
1 - C/FED
1 - HED Chrono
1 - C/PROD
1 - C/OPS
1 - C/AS
1 - FBIS Registry